Summary of Significant Proposed Revisions to Lake County Code Chapter 171, Onsite Wastewater Treatment Systems

§171.004 DUTIES AND POWERS OF THE HEALTH OFFICER

(H) – Subsection (H) of this section, regarding the assembly of a Technical Advisory Workgroup, is being removed. The purpose of the workgroup can be addressed through an ad hoc committee formed through the Environmental Health Advisory Committee.

§171.005 EXISTING SYSTEMS

(B)(1) - The proposed language explicitly states that continuous pumping of existing failing OWTS components shall not be considered safe and sanitary operation and maintenance of an OWTS. Although this action presents an immediate short term solution, it does not present a long term solution. A replacement system is needed in the majority of cases where an OWTS is causing unsanitary conditions.

(B)(2) - This proposed language would prohibit certain activities on areas where OWTS components exist. These activities can cause damage to components of the system and should therefore not be allowed on an area where system is located.

§171.021 GENERAL DEFINITIONS

Added definition: *ANIMAL PEN WASHWATER*: Water that has been used to wash floors of animal's pens that has concentrations of fecal coliform of less than 400cfu/100mls.

Treating this type of wastewater as domestic sewage is not needed because of the very low fecal coliform concentrations typical with pen cleaning operations. Having this definition allows for wastewater of this type, e.g. kennel wash water, to be separated from flows defined as domestic sewage and therefore treated and disposed of in a separate system not subject to the strict criteria used for domestic sewage. Past experience has revealed that when animal pen wastewater is comingled with domestic sewage, it often causes overloading of the OWTS because quantifying the flow of this cleaning water is not possible as it can greatly vary.

Revised definition: *CONCEPTUAL SITE PLAN*. This definition is being changed to more accurately describe the purpose of the site plan. The plan is not a plan for construction, as the code currently says, but rather a plan depicting a code compliant OWTS design that could be installed if needed. Proposed language in §171.068(D)(1)(a) further clarifies that a conceptual site plan cannot be submitted for construction of a replacement OWTS.

Revised definition: *CONSTRUCTION PERMIT*. This definition has been changed to Construction Approval. This more accurately describes the action of inspecting the site prior to constructing the system to assure the approved plan is still valid. The change occurs throughout the code.

Revised definition: *MAINTENANCE*. This definition is revised to include, in the definition of maintenance, replacement of disinfection components and pre-treatment component manholes or risers.

§171.035 PUBLIC SEWER AVAILABILITY

This section was broken up to contain 3 subsections for clarity and to better distinguish between the requirements.

(F)(1) - Two refinements have been added to "reasonable distance." First, when a project only proposes rearrangement of interior property lines and no additional parcel or parcels are created, the revision would not require a review of the proposal for public sewer availability. Changing or rearranging interior property simply changes the shape of parcels and is not germane to addressing the need of wastewater disposal for an existing structure or vacant property. This need is addressed at the time of a proposal to construct a new or replacement OWTS.

The second refinement concerns how the reasonable distance to a sewer is measured. The controlling authority of the public sewer determines the pathway of the sewer installation from an acceptable connection point on the sewer to a subject property. A measurement of "as the crow flies" from the nearest sewer to the subject property boundary is often times not realistic because an allowable connection point may be a significant distance from the closest physical point.

(F)(3) - New language has also been added concerning the replacement of pretreatment components and lift stations when they are creating an imminent health hazard. The common situation in these cases is when a tank lid collapses and poses a health and/or safety hazard, but the soil absorption component of the system is functioning appropriately. The time required to replace the tank is typically only a couple of days whereas connection to a public sewer could be weeks to months because of possible needed engineering and approvals. The cost of a tank replacement is also significantly less than connection to the sewer. This exception addresses these issues and would allow a tank replacement even where sewer is available, but only if the controlling authority does not object.

§171.068 APPROVAL CONDITIONS FOR ALTERATIONS TO PROPERTIES

(B)(2) - This proposed language provides homeowners greater flexibility and options when replacing a dwelling or non-residential structure while still maintaining compliance with setbacks to the OWTS components by more clearly defining and specifying what is required for the replacement structure to be primarily in the same building footprint.

(C)(1)(a) - This proposed language would allow the continued use of an existing lift station that is no more than one bedroom smaller than the required size provided it is determined and reported by a licensed OWTS Installation Contractor to be in sound condition and expected to function satisfactorily. This proposed change recognizes that the lift station is not a treatment component but rather just a holding and wastewater delivery component. Should there be actual increased water use, e.g. 2 bedroom house to a 3 bedroom house, it would simply mean that the pump would activate a few more times per day. This proposed change also helps address situations where accessibility to the property is limited.

(C)(3)(b) - This proposed language would allow a 20% reduction in the size of a soil absorption component with the installation of a Class I aerobic treatment unit, and an acceptable report by an OWTS Installation Contractor or Designer. This degree of reduction is currently permitted in the code for new and replacement OWTS. It should be noted that IDPH allows a 33% reduction.

§171.072 APPROVAL CONDITIONS FOR NON-SOIL BASED ONSITE WASTEWATER TREATMENT SYSTEMS

(B)(4) and (6) - This proposed language addresses the situation of non-residential structures with erratic daily wastewater flows over a period of a week. These facilities are characterized as having one or two days with high flow volumes flows and low or non-existent flows the remaining days of the week. The proposed change would stipulate that if the total for the week averages less than 150 gallons per day, a holding tank could be used for the OWTS.

§171.073 APPROVAL CONDITIONS FOR THE ELIMINATION OF ABANDONED ONSITE WASTEWATER TREATMENT SYSTEM COMPONENTS

(C)(2) and (3) - This proposed language more explicitly states the licensure that is needed for the specific work and would allow a demolition contractor to destroy the component and fill the resultant cavity under the supervision of an OWTS Installation Contractor. Since adoption of the code in December 2013, we have encountered numerous situations where demolition contractors get involved while they are onsite demolishing structures.

§171.100 GENERAL

(D) - The proposed change recognizes that options for disposal of water softener wastewater are covered in detail in the state code.

§171.101 PERFORMANCE OBJECTIVES FOR SOIL BASED ONSITE WASTEWATER TREATMENT SYSTEMS

(A)(3)(c)1 - The IDPH approved the use of a NSF ANSI Standard Number 350 treatment unit for onsite wastewater treatment systems in August, 2014. The approval was amended in September 2015. The NSF 350 -2014 standard is an onsite residential and commercial water reuse standard. The effluent standards of concern expressed as Test Average/Single Sample Maximum are: $CBOD_5$ mg/l – 10/25; TSS mg/l – 10/30; E. coli MPN/100ml – 14/240.

The State approval is based on application of the treated wastewater to the soil at saturated hydraulic conductivity rates determined by in-field infiltrometer measurements. The formula in the approval that is used to determine the required absorption area using the infiltrometer readings produces extremely small absorption areas. It should be noted there is not uniform agreement among soil scientists on hydraulic conductivity value charts based on soil characteristics. The State approval does not require a soil separation restriction (distance between wastewater application point and limiting layer) to seasonal high water or bedrock, and reduces the minimum setback to the owners well to 25 feet. We think these positions are too lax at this time, and thus are proposing slightly stricter, and more easily measured and enforced standards.

The proposed code language states the minimum unsaturated soil separation restriction and management activities that are required when a system contains a NSF ANSI Standard Number 350 treatment unit. Additional system design requirements are also stated in Table B.3 Soil Treatment Credit.

§171.103 DESIGN REQUIREMENTS FOR TYPE 1 AND TYPE 2 SOIL TREATMENT TRENCH SYSTEMS

(A)(11) - This proposed change allows for an increase in the soil cover over seepage trenches, from 18" to 24", which will allow slightly deeper installation that may be beneficial to the system design.

(A)(12)(e) - The restriction in the length of the trench (and thus the lateral) is proposed to be removed, as a length restriction is not justified or necessary. The manual, "Design of Pressure Distribution Networks for Septic Tank-Soil Absorption Systems," can be used to determine longer laterals.

§171.104 DESIGN REQUIREMENTS FOR TYPE 3 MODIFIED MOUND SYSTEMS
And
§ 171.106 DESIGN REQUIREMENTS FOR TYPE 5 MOUND SYSTEMS

§171.104(A)(6) and §171.106(A)(6) - The proposed code language will allow the use of seepage chambers as an alternative to gravel seepage trenches in a modified mound system and mound system and establishes requirements for their use.

§171.110 DESIGN REQUIREMENTS FOR NON-SOIL BASED SYSTEMS

(B)(d) - This language is a change that removes the requirement from an owner to submit a pumping ***contract,*** requiring instead that they provide verification that they do have an ***agreement*** to have the tanks pumped on an as needed basis.

§171.222 SURFACE DISCHARGING ONSITE WASTEWATER TREATMENT SYSTEMS

(A)(2)(a) - This proposed language clarifies that the effluent standards in Table B.4 (Appendix B) do not apply to existing surface discharge systems.

§171.223 HOLDING TANKS

(B) - This proposed language removes the requirement for biannual inspection by the Health Officer for vault privies and waterless toilets. These components are almost exclusively located on public recreational property and are overseen by employees of the governing entity. As such, health department inspections would be redundant.

§171.241 OTHER REMEDIES

This is a proposed new section with language that allows the Health Officer to use the option of the administrative adjudication hearing process, rather than circuit court, to seek corrective action of any violation in the ordinance. This process has proven to be very effective at gaining compliance of violations in the Lake County Nuisance Code. Similar language has been included in revisions to all Health Department ordinances.

§171.258 VARIANCES

(A)(2)(a) - This proposed language clarifies the documentation that must be submitted for review for a variance request seeking relief from the requirement to connect to a public sewer.

TABLE B.2 – MAXIMUM WASTEWATER LOADING RATES

This proposed language changes the minimum sizing determination for trench type and drip distribution type OWTS. Currently the most restrictive layer in the top 24 inches of soil is used. The proposed change requires the use of the most restrictive layer encountered from the distribution lateral invert to 24 inches below the wastewater application point. Also, the proposed loading rates for NSF 350 treated effluent units are listed.

APPENDIX D: MINIMUM SETBACK DISTANCES

There are several new features proposed, i.e. above ground swimming pool, retaining wall, storm sewer pipe, with required setback distances from components of OWTSs that protect system components and/or minimizes contamination potential. Also proposed are two additional system components with setback distances, and the re-naming of Class V Injection Well to Large Capacity Septic System for clarity.